

Cedar River Instream Flow Commission

Final Minutes

SPU Water Quality Lab

November 4th, 2009

Organizations/Members Present:

- Seattle Public Utilities (Tom Fox, Karl Burton, Rand Little)
 - King County Dept. of Natural Resources and Parks (Steve Hirschey, Dave Monthie)
 - U.S. Army Corps of Engineers (Larry Schick, Lynne Melder)
 - NOAA Fisheries (Tom Sibley)
 - Muckleshoot Indian Tribe (Holly Coccoli)
 - US Fish and Wildlife Service (Tim Romanski)
 - Seattle City Light (Liz Ablow)
 - Washington Dept. of Fish and Wildlife (Mark Hunter)
 - Washington Dept. of Ecology (Jay Cook)
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- I. Call to Order:** Tom Fox called the meeting to order at 9:45 AM.
- II. Approval of Agenda:** The agenda was approved as presented.
- III. Approval of Draft Minutes:** October's draft minutes approved as presented.
- IV. News and Notes:** Steve reported that he had followed up with USGS on availability of LiDar coverage for the whole lower Cedar River.
- V. Real Time Water Management:**

Hydrologic Conditions for Tolt and Cedar: Chester Morse Reservoir has recovered and is currently at elevation 1552', near the target flood control elevation for this time of year. Recently, the overflow dike has been overtopped reconnecting Masonry Pool to restore the reservoir to a single pool condition. Tom reported that the temporary pump plants are still on standby. Full mobilization is postponed for now, but safety improvements are still underway and the generators used to run the pumps are still under lease. The City is currently reviewing financial information to make a decision on moving forward with the permanent pump plant project. That decision will be made in the next couple of weeks. The City is also currently

planning to survey the outflow channel and may apply to the Corps of Engineers for a dredging permit if the pump plant construction is delayed or cancelled. During the last survey in 2006, it was determined that the high point in the outflow channel had risen by another 0.2 feet. Tom said the Utility may initiate permitting discussions on possible dredging soon. Tim and Holly indicated that it would be good to initiate permit discussions as early as possible and cultural resources will be an area of concern. Tim suggested that the City perhaps apply for a 10-year permit rather than a shorter duration.

The 15-day rolling average for inflows as measured in the Cedar River above the reservoir is approximately 275 cfs. With the onset of fall rains, SPU shifted to the high normal fall flow regime on October 26. Since October 24th, estimated unregulated flows have been substantially higher than actual flows in the Cedar River. Under unregulated conditions, the river would have already exceeded estimated salmon redd scour thresholds.

There have been three downramping events which, although less than 2 inches per hour, exceeded the 1 inch per hour criteria that is in place until October 31. The first event was the result of initial opening of the diversion after a full shutdown. To prevent cavitation and associated potential valve damage, this initial opening must occur more rapidly than subsequent openings. The IFA allows for up to a 60 cfs per hour rate of river flow decline during initial opening of the diversion after a full shutdown. Therefore, this first event did not constitute a formal exceedence. The second event was a drop at an average rate of 54 cfs or 1.44 inches per hour due primarily to a rapid decline in natural inflows between Masonry Dam and Landsburg. This rate of decline was slightly compounded by a coinciding reduction of generation flow at Cedar Falls at an average rate of 10 cfs per hour as requested by SPU. Last week, SPU had a third downramping event associated with operations at Landsburg that resulted in a 1.4 inch per hour drop in stage. The event occurred during a relatively dynamic period and staff are still trying to understand exactly what happened. Rand will report their conclusions at the next IFC meeting. Tim asked that SPU provide detailed flow data on the downramping events.

Consumption is currently around the 110 MGD level and total cumulative diversion for 2009 is slightly higher than last year. The SEAFM forecast predicts good water supply conditions and SPU intends to target 1552' for Chester Morse flood pocket elevation in the near-term.

Lake Washington: Lynne reported that the current lake elevation was 20.4 feet and the Corps is drafting the lake until the target elevation of 20.0 feet is reached on December 1st. Holly reported that efforts to obtain federal funding for Stony Gate Valve replacement and other repairs and improvements at the Locks were unsuccessful this year, despite a lot of good work by many people. Lynne reported

that the Corps however did receive funding to be undertake a comprehensive study to determine the feasibility of rehabilitating the locks and the surrounding facilities.

Fish Update: Rand reported that 285 Chinook redds had been observed in the Cedar River mainstem to date and it was likely that only a few more redds would be observed given the date and the results from the last survey. This is about 75% of the average redd count for the last 10 years and perhaps a bit better than expected based on Locks counts. There were 140 Chinook over Landsburg Dam including 30 females. Karl reported that, to date, 27 Chinook redds have been observed upstream of Landsburg. Coho salmon were observed relatively early at Landsburg this year and the results so far indicate a robust coho return above Landsburg is likely.

Forecasts and Water Supply Outlook: Larry reported the latest predictions from the weather model at the University of Washington. Thursday is expected to be rainy followed by an extended cold and wet pattern. Snow is expected in the mountains between Friday and Sunday. On Sunday, the freezing level will increase and approximately 1" of rain is expected. Another cold pattern should emerge after Sunday. None of the events in the current model runs out to 7days appear to present flood risks, but we'll need to continue to watch them.

Larry reported that Howard Hansen Reservoir is currently being managed with 1155' as the maximum elevation. Tomorrow the chief ACOE engineer will make an announcement on allowable elevation so the current maximum may change. The Corps will be installing new flow and rain gages in the basin to improve modeling accuracy and flood response planning.

New meteorological monitoring equipment has been installed near the Washington Coast. Information from this equipment will be helpful, especially in tracking "atmospheric river" conditions. Larry will send the web link for this information to the IFC.

Holly indicated the Tribe's concern for Green River Chinook this year with potentially increased risk of redd scour and stranding young fish behind levees. The Tribe is also concerned about the Soos Creek Hatchery and its vulnerability to flooding. She noted the effects that river confinements have on flooding elsewhere and emphasized the potential importance of reclaiming functional flood plane through activities such as levee setback.

Larry reminded the IFC that this year is likely going to be a moderate El Nino year. Lower precipitation later in the winter is typical for Western Washington in El Nino years but that pattern does not always materialize as in 2006 when a normal snowpack occurred despite El Nino conditions. Larry believes that El Nino

conditions in the tropics do not send a particularly strong signal for weather in the Pacific Northwest.

VI. Supplemental Studies

Juvenile Chinook Rearing Habitat Electivity Study: Tracey Leavy with USFWS has recently posted Chapter 3 (microhabitat) on the USFWS web page after addressing the IFC comments from last year. Roger will attend the February 3rd meeting to present his results from the mesohabitat part of the study.

Adaptive Management Program Peak Flow Study Scope: Rand provided an update regarding progress on the Peak Flow AMP study. At the last meeting, the IFC narrowed the field of desirable representative reaches from 10 to 4. The four reaches represent 2 confined reaches and 2 unconfined reaches. The study team would like to further narrow the study reaches to 1 confined and 1 unconfined. One of the USGS staff for this project (Andy Gandeszek) is working with UW professor Dave Montgomery to use this project in a PhD dissertation. Karl and Rand will be floating with the USGS team later this month to collect a variety of data that will support final selection of representative study reaches and other aspects of the project.

IHA Study: The IFC reviewed distributed packets containing the subset of IHA parameters selected by the IFC at the October meeting. The packets placed the parameters in the 5 IHA sub-categories along with Rand's initial attempt to link each category to relevant ecological considerations. The group moved through each category, refining the list of ecological considerations and possible parameter refinements. Rand will distribute a revised packet capturing the suggestions prior to the December meeting.

The group reviewed a comparison of pre- and post-development flow duration curves provided by Chris Konrad from his hydrologic analysis spreadsheet tool. The group then developed a list of additional parameters of interest that might be generated by Chris's spreadsheet. Rand will forward these suggestions to Chris.

VII. Agenda Items for Next Meeting:

- 1) IHA study update.
- 2) Report on Peak Flow AMP Cedar River Field Trip
- 3) Discuss Peters' Report Chapter 3

VIII. Meeting adjourned at 12:45 PM